

WHAT IS CLAIMED IS:

1. A system for controlling a speed of an internal combustion engine installed in an outboard motor mounted on a boat and having a propeller powered by the engine to propel the boat, the engine having a throttle valve that regulates air to be sucked,
5 comprising:

an actuator connected to the throttle valve to move it in an opening direction or in a closing direction;

engine speed detecting means for detecting the speed of the engine;

engine trouble detecting means for detecting a trouble occurred in the engine;

10 engine speed discriminating means for discriminating whether the detected engine speed exceeds a predetermined speed when it is detected that the trouble has occurred in the engine; and

actuator driving means for driving the actuator to move the throttle valve in the closing direction such that the engine speed drops, when it is discriminated that the
15 detected engine speed exceeds the predetermined speed.

2. A system according to claim 1, wherein the trouble includes at least one of engine overheating, shortage of engine oil and excessive engine revving.
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3. A system according to claim 1, further including:

alerting means for alerting an operator to occurrence of the trouble.

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4. A system according to claim 1, wherein the predetermined speed is a speed at which the engine can assumably continue to run until the boat has returned to port.

5. A system according to claim 1, wherein the actuator driving means drives the actuator to move the throttle valve in the closing direction by an amount repeatedly such that the engine speed drops gradually.

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6. A method of controlling speed of an internal combustion engine installed in an outboard motor mounted on a boat and having a propeller powered by the engine to propel the boat, the engine having a throttle valve that regulates air to be sucked and an actuator connected to the throttle valve to move it in an opening direction or in a closing direction;, comprising the steps of:

10 detecting the speed of the engine;
detecting a trouble occurred in the engine;
discriminating whether the detected engine speed exceeds a predetermined speed when it is detected that the trouble has occurred in the engine; and
15 driving the actuator to move the throttle valve in the closing direction such that the engine speed drops, when it is discriminated that the detected engine speed exceeds the predetermined speed.

20 7. A method according to claim 6, wherein the trouble includes at least one of engine overheating, shortage of engine oil and excessive engine revving.

25 8. A method according to claim 6, further including the step of:
altering an operator to occurrence of the trouble.

9. A method according to claim 6, wherein the predetermined speed is a speed

at which the engine can assumably continue to run until the boat has returned to port.

10. A method according to claim 6, wherein the step of actuator driving drives
5 the actuator to move the throttle valve in the closing direction by an amount repeatedly
such that the engine speed drops gradually.

11. A computer program embodied on a computer-readable medium for
10 controlling speed of an internal combustion engine installed in an outboard motor
mounted on a boat and having a propeller powered by the engine to propel the boat, the
engine having a throttle valve that regulates air to be sucked and an actuator connected
to the throttle valve to move it in an opening direction or in a closing direction,,
comprising the steps of:
15 detecting the speed of the engine;
detecting a trouble occurred in the engine;
discriminating whether the detected engine speed exceeds a predetermined
speed when it is detected that the trouble has occurred in the engine; and
driving the actuator to move the throttle valve in the closing direction such
20 that the engine speed drops, when it is discriminated that the detected engine speed
exceeds the predetermined speed.